
UNECE STANDARD FFV-49

concerning the marketing and
commercial quality control of

PINEAPPLES

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NOTE

Working Party on Agricultural Quality Standards

The commercial quality standards developed by the Working Party on Agricultural Quality Standards of the United Nations Economic Commission for Europe (UNECE) help facilitate international trade, encourage high-quality production, improve profitability and protect consumer interests. UNECE standards are used by Governments, producers, traders, importers and exporters, and other international organizations. They cover a wide range of agricultural products, including fresh fruit and vegetables, dry and dried produce, seed potatoes, meat, cut flowers, eggs and egg products.

Any member of the United Nations can participate, on an equal footing, in the activities of the Working Party. For more information on agricultural standards, please visit our website <http://www.unece.org/trade/agr/welcome.html>.

The present Standard for Pineapples is based on document ECE/TRADE/C/WP.7/2012/10 reviewed and adopted by the Working Party at its sixty-eighth session.

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UNECE standard FFV-49 concerning the marketing and commercial quality control of pineapples

I. Definition of produce

This standard applies to pineapples of varieties (cultivars) grown from *Ananas comosus* (L.) Merr. to be supplied fresh to the consumer, pineapples for ornamental use or industrial processing being excluded.

II. Provisions concerning quality

The purpose of the standard is to define the quality requirements for pineapples after preparation and packaging.

However, if applied at stages following export/dispatch, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- for products graded in classes other than the “Extra” Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the pineapples must be:

- intact, with or without crown; if present, the crown may be reduced or trimmed
- sound; produce affected by rotting or deterioration, such as to make it unfit for consumption, is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- fresh in appearance, including the crown
- free of abnormal external moisture
- free of any foreign smell and/or taste.

When a stalk is present, it shall not be longer than 2.5 cm measured from the shoulder of the fruit and the cut must be transversal, straight and clean. However, during transportation pineapples with a longer stem are excluded from these requirements.

The development and condition of the pineapples must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.

B. Maturity requirements

The pineapples must be sufficiently developed and display satisfactory maturity and/or ripeness, in accordance with criteria proper to the variety and to the area in which they are grown.

The total soluble solids content of the fruit flesh should be at least 12⁰ Brix.

Fruit showing over-ripeness affecting edibility is excluded.

The skin colour can be green, provided the minimum maturity requirements are met.

C. Classification

Pineapples are classified in three classes, as defined below:

(i) “Extra” Class

Pineapples in this class must be of superior quality. They must be characteristic of the variety.

The crown, if present, must be single and straight with no side-shoots and should not exceed 150 per cent of the length of the fruit. It must be fresh and not discoloured.

The flesh must be perfectly sound.

They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

(ii) Class I

Pineapples in this class must be of good quality. They must be characteristic of the variety.

The crown, if present, must be single and with no side-shoots and should not exceed 150 per cent of the length of the fruit. It may be:

- slightly damaged
- slightly discoloured
- slightly curved with a maximum inclination not exceeding 30⁰ from the longitudinal axis of the fruit.

The flesh must be perfectly sound.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- slight defects in colouring, including discolouration caused by the sun
- slight skin defects not exceeding 5 per cent of the total surface area
- slight bruises.

(iii) Class II

This class includes pineapples that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

The flesh must be free from major defects.

The following defects may be allowed, provided the pineapples retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape, including a double crown
- defects in colouring, including sun-scorch

- skin defects not exceeding 10 per cent of the total surface area
- bruises.

III. Provisions concerning sizing

Size is determined by weight.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

- 300 grams for fruit weighing 1 300 g or less
- 680 grams for fruit weighing more than 1 300 g.

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.¹

A. Quality tolerances

(i) “Extra” Class

A total tolerance of 5 per cent, by number or weight, of pineapples not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of pineapples not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of pineapples satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 20 per cent, by number or weight, of pineapples not satisfying the requirements as regards sizing is allowed.

¹ A conformity check shall be made by assessing primary or composite samples. It is based on the principle of presumption that the quality of the randomly taken samples is representative of the quality of the lot. The OECD Operating Rules for Conformity Checks are recommended for application – also by operators – at the stages of dispatch as well as in wholesale and distribution centres and storerooms of food retail.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only pineapples, with or without crowns, of the same origin, variety, quality and size.

In addition, for the “Extra” Class and Class I, uniformity in colouring and length of crowns is required.

The visible part of the contents of the package must be representative of the entire contents.

B. Packaging

Pineapples must be packed in such a way as to protect the produce properly.

The materials used inside the package must be clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Stickers or labels individually attached to the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects. Information lasered on single fruit should not lead to flesh or skin defects.

Packages must be free of all foreign matter.

VI. Provisions concerning marking

Each package² must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority³ if the country applying such a system is listed in the UNECE Code Mark Registry⁴. In the case where there is no street address available, the physical address can be made up of the name of the farm or facility, the nearest village, town, region, and postal code; or GPS coordinates and a PO Box address together with nearest town, region and country shall be accepted as a physical address.⁵

² These marking provisions do not apply to sales packages presented in packages bearing these particulars. However, they do apply to sales packages (pre-packages) presented individually.

³ The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference “packer and/or dispatcher (or equivalent abbreviations)” has to be indicated in close connection with the code mark, and the code mark should be preceded by the ISO 3166 (alpha-2) country/area code of the recognizing country, if not the country of origin.

⁴ See <http://www.unece.org/trade/agr/codemarkregistry.html>.

⁵ Reservation by the United States of America on the use of a PO Box address, as it may not allow facility inspections or rapid intervention in case of recalls, and is not part of its national labelling requirement related to packer and/or dispatcher/exporter.

B. Nature of produce

- "Pineapples" if the contents are not visible from the outside
- Name of variety for "Extra" Class and Class I. The name of the variety can be replaced by a synonym. A trade name⁶ can only be given in addition to the variety or the synonym.
- "Without crown" or equivalent denomination, where appropriate.

C. Origin of produce

- Country of origin⁷ and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class
- Size expressed as:
 - minimum and maximum weight; or
 - number of fruits
- Colour code (optional)
- The indication "Should not be stored below 8⁰ C" (optional).

E. Official control mark (optional)

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The UNECE has published an explanatory illustrated brochure on the application of this standard. The publication may be obtained from the UNECE at: www.unece.org/trade/agr/welcome.htm

⁶ A trade name can be a trade mark for which protection has been sought or obtained or any other commercial denomination.

⁷ The full or a commonly used name should be indicated.